LOGIC PROBE CE

This Logic Probe including the level detector, pulse detector and pulse memory,is a powerful tool. When it accept Logic signal, It can emit two different sounds so that the user can distinguish between Hi and Lo by two different tone. It is appliable to est various IC, such as TTL/DTL/RTL/HTL/CMOS/MOS.

This Logic Probe can be operated in small space. LED has three colors and shows the Logic situation of pulse, Hi and Lo. The Min.pulse width can be 30ns. As for the measurable Max.pulse, it can be 17MHZ. Under this range, it is nearly appliable to any kind of Logic circuit. It's an economical and a practical tool.

SPECIFICATION:

a. input impedance.....1MΩ.
b. Min. pulse width.....30ns.
c. Max.input frequency.....17MHZ.
d. Measureable Logic Gate

	TTL	CMOS
Logic 1 (red LED lights and then it buzzes)	2.3V ± 0.2V	70%Vcc
Logic 0 (green LED lights and then it buzzes)	0.8V ± 0.2V	30%Vcc

e. input overvoltage protection: 220V DC/AC 15sec.
f. Pulse (yellow LED) flash time.....500ms.
g. Power supply protection.....±20V.
h. Dimemsion:

main body	with case
212*26.5*18mm	235*78*32mm

(L*W*H)

i. Weight:

65g	210g

OPERATION INSTRUCTION:

A) Installation
  a. Contect to power:
    1.Connect the black Alligator Clip to GND(-).
    2.Connect the red Alligator Clip to VCC(+),Vcc must be less than 20V.
  b. Adjust switch's position:
    1.TTL/CMOS switch
      Set the switch on TTL to test TTL.
      The Logic "1" of TTL is 2.3V±0.2V. Logic "0" is 0.8V±0.2V.
      It also can be set on CMOS to test the circuit of CMOS.
      The Logic "1" of CMOS is 70%Vcc. "0" is 30%Vcc.
    2.Pulse/Memory switch
      This Logic Probe can detect and memorize the transference of pulse level. Either +dege or -edge can be detected and memorized by the selection of switch.
      (a) **Pulse Position:** Set the switch on pulse. Now there is no function of memory. The transference of input voltage is from 0 to 1 or 1 to 0. The display of light of pulse can flash and operate for 500ms. The The buzzer will cause continual sounds. Moreover, the switch can test the trigger edges of pulse is (+edge) of (-edge).
      (b) **Memory position:** Set the switch on memory. The function of memory begins operation. When there is any pulse or level transference, the pulse display lights and the buzzer produes sounds until reset.
    * When the red or green lights brights, the buzzer produces sounds.
B) Accessories:
  a. Exquisite portable outer case.
  b. External Terminal:
    1.Black terminal: It grounds in commence with tested circuit.
    2.Red Terminal: It has test clip. The test clip and probe cooperated to make this Logic Probe to function well when adapting circuit.

TYPICAL SIGNALS AND CORRESPONDING LED INDICATION:

ITEMS	WAVEFORM	LED INDICATIONS LEVEL PULSE RED GREEN YELLOW	BEEPER
Logic '0' no pulse activity	1 / 0	○ ● ○	Low tone
Logic '1' no pulse activity	1 / 0	● ○ ○	High tone
Signal level between '0' & '1'	1 / 0	○ ○ ○	
Logic '0' with pulse	1 / 0	○ ● ☆	Intermittently low tone
Logic '1' with pulse	1 / 0	● ○ ☆	Intermittently high tone
Pulse train with freq F less then 200 KHz	1 / 0	● ● ☆	1.Alternate and intermittently sound 2.Mixed and intermittent sound

● LED on ○ LED off ☆ LED blink - - - - - ref level ———— signal